PROJECT DESCRIPTION

THIS PROJECT INVOLVES INSTALLATION OF APS/CPS PEDESTRIAN EQUIPMENT ON THE NORTH, SOUTH, AND WEST LEGS OF THE INTERSECTION OF MD 28 (DARNESTOWN ROAD) AT RIFFLE FORD ROAD/SEURAT DRIVE IN MONTGOMERY COUNTY. MD 28 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION THIS INTERSECTION OPERATES IN A NEMA SIX-PHASE SEMI-TRAFFIC-ACTUATED MODE. THERE ARE EXCLUSIVE/PERMISSIVE LEFT-TURN PHASES FOR EASTBOUND AND WESTBOUND MD 28. THE RIFFLE FORD ROAD AND SEURAT DRIVE APPROACHES OPERATE CONCURRENTLY. AN ALTERNATE PEDESTRIAN PHASE ACROSS THE WEST LEG OF THE INTERSECTION IS PROVIDED.

A CONCURRENT PEDESTRIAN PHASE IS PROVIDED ACROSS THE NORTH AND SOUTH LEGS OF RIFFLE FORD ROAD/SEURAT DRIVE.

III. PEDESTRIAN OPERATION NAVIGATOR AUDIBLE PEDESTRIAN PUSHBUTTONS TO CROSS THE NORTH, SOUTH, AND WEST LEGS OF THE INTERSECTION ARE TO BE PROVIDED. WHEN THE PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE:

NORTH: "WAIT TO CROSS RIFFLE FORD AT DARNESTOWN, WAIT." SOUTH: "WAIT TO CROSS SEURAT AT DARNESTOWN, WAIT." WEST: "WAIT TO CROSS DARNESTOWN AT RIFFLE FORD, WAIT,"

WHEN THE WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

CONTACT PERSONS

THE CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

DISTRICT 3

MS. ANYESHA MOOKHERJEE (MO) ASSISTANT DISTRICT ENGINEER - TRAFFIC 301-513-7404/301-513-7358

MR. VICTOR GRAFTON DISTRICT ENGINEER - UTILITIES 301-513-7350

MR. DUANE BERNARD ASSISTANT DISTRICT ENGINEER - CONSTRUCTION 301-513-7385

MR. THOMAS FOUNTAIN ASSISTANT DISTRICT ENGINEER - MAINTENANCE

MONTGOMERY COUNTY

301-513-7304

MR. ROBERT RICKETTS TECHNICAL CENTER SUPERVISOR PHONE NUMBER 240-876-3681

MR. KAMAL HAMUD MONTGOMERY COUNTY-TRAFFIC ENGINEERING PHONE NUMBER 301-777-8761

CONSTRUCTION MANAGERS

936 RIDGEBROOK ROAD Sparks, Maryland 21152 TELEPHONE: (410) 316-7800

TECHNOLOGIES Fax: (410) 316-7818

OFFICE OF TRAFFIC AND SAFETY

MS. CORREN JOHNSON CHIEF. TRAFFIC OPERATIONS 410-787-7630

MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS

MR. ED RODENHIZER CHEIF SIGNAL OPERATIONS 410-787-7650

410-787-7630

MR. EUGENE BAILEY CHIEF SIGN OPERATIONS 410-787-7670

MR. MIKE STOCKER SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE) 410-787-7668

MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE FOLLOWING STANDARD PLATES FOR TRAFFIC CONTROL: MD 104.03-11, MD 104.04-13 THROUGH MD 104.04-16.

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION.... ITEM NO. QUANTITY UNIT DESCRIPTION 1 EA VIDEO DETECTION INTERFACE EQUIPMENT: 1-8 CAMERAS

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR ITEM NO. QUANTITY UNIT DESCRIPTION

100000	1	EA	MAINTENANCE OF TRAFFIC (PER INTERSECTION)
201032	30	CY	CLASS 2 EXCAVATION
203030	3	CY	TEST PIT EXCAVATION
504150	3	TON	HOT MIX ASPHALT SUPERPAVE 9.5MM FOR SURFACE, PG76-22, LEVEL-3
520109	6	SY	3 INCH GRADED AGGREGATE BASE COURSE
585621	440	LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585700	440	LF	REMOVAL OF EXISTING PAVEMENT MARKING LINES, ANY WIDTH
600000	115	LF	TYPE A COMBINATION CURB AND GUTTER ANY HEIGHT OR DEPTH
600000	22	LF	TYPE A CURB ANY HEIGHT OR DEPTH
655105	915	SF	5 INCH CONCRETE SIDEWALK
655120	60	SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
704345	14	SY	PLACING FURNISHED TOPSOIL 4 INCH DEPTH
705500	14	SY	TURFGRASS ESTABLISHMENT
800000	1	EA	2-WIRE APS CENTRAL CONTROL UNIT
800000	1	EA	ADJUST HANDHOLE TO GRADE AND REPLACE FRAME AND COVER
800000	6	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
800000	6	EA	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	2	EΑ	IP-BASED VIDEO DETECTION CAMERA & ANY LENGTH LEAD-IN CABLE
800000	6	EΑ	5 FOOT OR 10 FOOT PEDESTAL POLE WITH BREAKAWAY COUPLINGS, FOUNDATION & GROUND ROD
800000	1	EA	REMOVE & DISPOSE OF EXISTING SIGNAL EQUIPMENT (PER SIGNALIZED INTERSECTION LOCATION)
800000	80	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
800000	26	SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
800000	1	ĒΑ	THIRD PARTY CONCRETE TESTING (PER INTERSECTION)
802501	110	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
861105	990	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	1020	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

C. ALL MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE

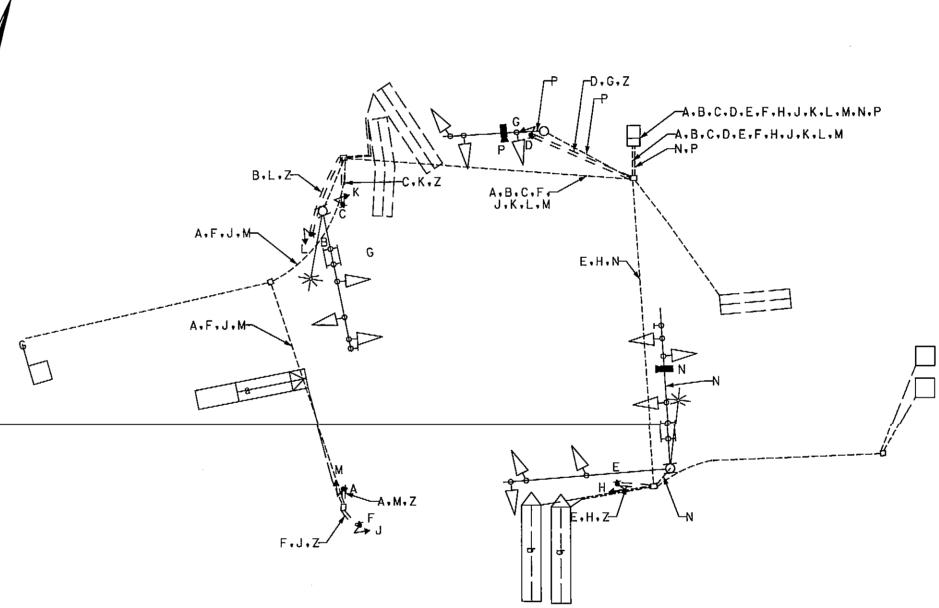
PROPERTY OF THE CONTRACTOR.

PHASING CHART

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

PHASE 1 & 5	4-G⁄R	4-G∕R	R	4-G⁄R	4-G∕R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	^}_
1 & 5 CHANGE THE CONTROLLER MAY SKIP TO PHASES 1&6, 2&5 OR 2&6.													∀ ,						
PHASE 1 & 6	4-G∕G	4-G∕G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	<u> </u>
1 & 6 CHANGE	4-Y /Y	4-Y/Y	Υ	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	
PHASE 2 & 5	R	R	R	4-G∕G	4-G∕G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	4
2 & 5 CHANGE	R	R	R	4-YY	4-Y/Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	} √_
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	wĸ	WK	WK	wĸ	DW	DW	°
PED CLEAR	G	G	G	G	G	G	R	R	R	R	R	R	FI.⁄DW	FL/DW	FL⁄DW	FL/DW	DW	DW	7
2 & 6 CHANGE	Υ	Υ	Υ	Υ	Υ	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	0
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	ĐW	DW	DW	DW	DW	A+
4 & 8 CHANGE	R	R	R	R	R	R	Υ	Y	Υ	Υ	Υ	Υ	DW	DW	DW	DW	DW	DW	
PHASE ALT. 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	wĸ	WK	01 V
PED CLEAR	R	R	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	11 1
ALT. 4 & 8 CHANGE	R	R	R	R	R	R	Y	Υ	Υ	γ	Υ	Υ	DW	DW	DW	DW	DW	DW	¦. \
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	+ 4

WIRING DIAGRAM



WIRING KEY

A.B.C.D.E.F ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG) G.H.J.K.L.M ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

N.P VIDEO DETECTION CONTROL CABLE Z NO. 6 AWG STRANDED BARE COPPER GROUND WIRE.



STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION MD 28 (DARNESTOWN ROAD) AT

RIFFLE FORD ROAD/SEURAT DRIVE

QUINCE ORCHARD, MARYLAND **GENERAL INFORMATION SHEET**

SHEET NO. 21 OF 24

SCALE N.T.S.	ADVERTISED DAT	E <u>MARCH 2013</u> CONTR	ACT NO. <u>XY1515185</u>	
DESIGNED BY	AMH/JVB	COUNTY	MONTGOMERY	
DRAWN BY	JVB	LOGMILE	15002815.21	
CHECKED BY	JFL	TIMS NO	L735	
F.A.P. NO.	_	TOD NO.	_	

DRAWING SG-3 OF 3